

## Cognitive Behavioral Therapy (CBT) for juvenile offenders

Benefit-cost estimates updated December 2015. Literature review updated December 2014.

Current estimates replace old estimates. Numbers will change over time as a result of model inputs and monetization methods.

The WSIPP benefit-cost analysis examines, on an apples-to-apples basis, the monetary value of programs or policies to determine whether the benefits from the program exceed its costs. WSIPP's research approach to identifying evidence-based programs and policies has three main steps. First, we determine "what works" (and what does not work) to improve outcomes using a statistical technique called meta-analysis. Second, we calculate whether the benefits of a program exceed its costs. Third, we estimate the risk of investing in a program by testing the sensitivity of our results. For more detail on our methods, see our [technical documentation](#).

Program Description: Cognitive-Behavior Therapy (CBT) emphasizes individual accountability and teaches offenders that cognitive deficits, distortions, and flawed thinking processes can cause criminal behavior. CBT is delivered to juveniles in both the institutional and community settings. This meta-analysis included CBT "brand name" programs including Reasoning and Rehabilitation, Moral Reconation Therapy, and Situational-Decision Making, among others, as well as homegrown CBT programs. We further examined the effectiveness of CBT using multivariate regression analysis and found little variation based upon program brand, gender of participants, treatment length, treatment setting or follow-up period (p0.5).

### Benefit-Cost Summary

Program benefits		Summary statistics	
Participants	\$417	Benefit to cost ratio	\$9.27
Taxpayers	\$999	Benefits minus costs	\$3,210
Other (1)	\$1,865	Probability of a positive net present value	78 %
Other (2)	\$317		
Total	\$3,598		
Costs	(\$388)		
Benefits minus cost	\$3,210		

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2014). The economic discount rates and other relevant parameters are described in our [technical documentation](#).

## Detailed Monetary Benefit Estimates

Source of benefits	Benefits to				Total benefits
	Participants	Taxpayers	Other (1)	Other (2)	
From primary participant					
Crime	\$0	\$764	\$1,708	\$384	\$2,856
Labor market earnings (hs grad)	\$430	\$184	\$213	\$101	\$928
Health care (educational attainment)	(\$14)	\$51	(\$56)	\$26	\$7
Adjustment for deadweight cost of program	\$0	\$0	\$1	(\$194)	(\$193)
<b>Totals</b>	<b>\$417</b>	<b>\$999</b>	<b>\$1,865</b>	<b>\$317</b>	<b>\$3,598</b>

We created the two "other" categories to report results that do not fit neatly in the "participant" or "taxpayer" perspectives. In the "Other (1)" category we include the benefits of reductions in crime victimization, the economic spillover benefits of improvement in human capital outcomes, and the benefits from private or employer-paid health insurance. In the "Other (2)" category we include estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

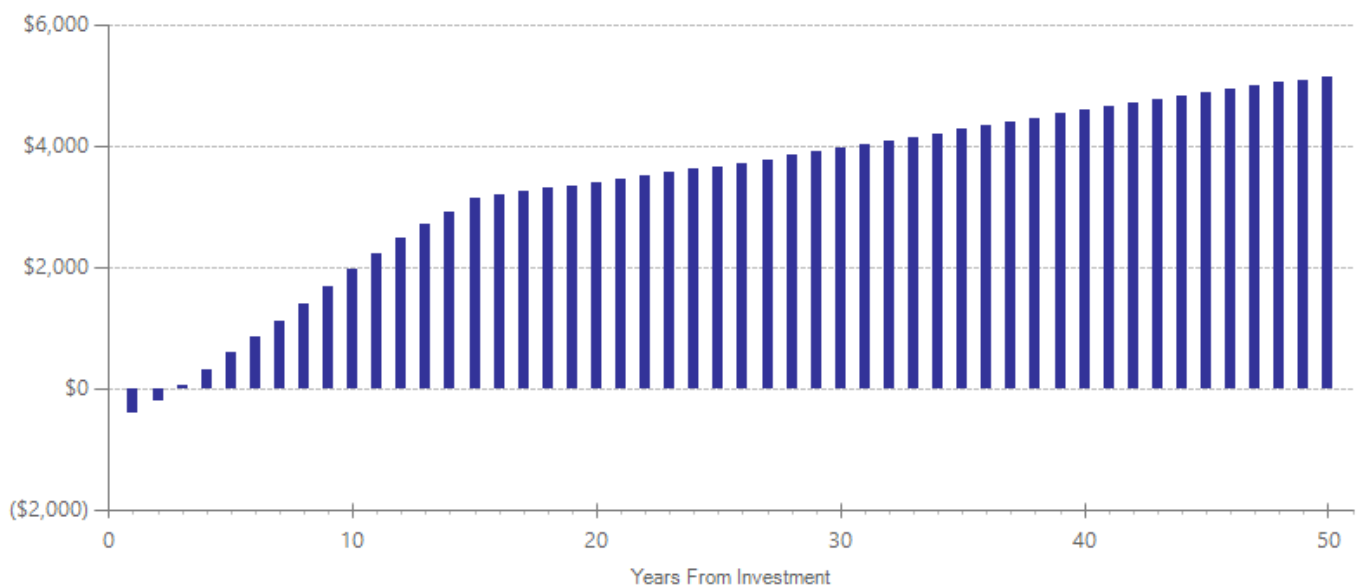
## Detailed Cost Estimates

	Annual cost	Program duration	Year dollars	Summary statistics	
Program costs	\$285	1	1998	Present value of net program costs (in 2014 dollars)	(\$388)
Comparison costs	\$0	1	1998	Uncertainty (+ or - %)	10 %

Aos, S., Phipps, P. Barnoski, R. & Lieb, R. (1999). The comparative costs and benefits of programs to reduce crime: A review of national research findings with implications for Washington state. Olympia: Washington State Institute for Public Policy.

The figures shown are estimates of the costs to implement programs in Washington. The comparison group costs reflect either no treatment or treatment as usual, depending on how effect sizes were calculated in the meta analysis. The uncertainty range is used in Monte Carlo risk analysis, described in our [technical documentation](#).

### Cumulative Net Cash Flows Over Time (Non-Discounted Dollars)



## Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Crime	Primary	8	2114	-0.122	0.110	-0.037	0.041	18	-0.037	0.041	28

## Citations Used in the Meta-Analysis

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